I. Listing of Claims

1. (Currently Amended): A system for actively controlling the suspension of a vehicle comprising:

a plurality of adjustable struts;

an actuator coupled to the plurality of struts to effectuate adjustment thereof;

a plurality of displacement sensors, each displacement sensor configured to measure a displacement of one strut of the plurality of struts and generate strut relative displacement signals based on the displacement measured;

a controller in electrical communication with the plurality of sensors, wherein the controller is configured to determine a first frequency amplitude for heave, pitch, or roll of the vehicle based on the strut relative displacement signals and to actuate the actuator based thereon to control and adjust the suspension of the vehicle, the controller being configured to extract a second frequency amplitude based on a body relative velocity and calculate a third frequency based on a proportion of the first and second frequency amplitudes.

2. (Original): The system according to claim 1, wherein the controller includes a derivative filter to generate a strut relative velocity based on the strut relative displacement signals.

3. (Original): The system according to claim 2, wherein the controller is configured to generate body relative velocity based on the strut relative velocity.

4. (Original): The system according to claim 2, wherein the controller is configured to calculate a body relative heave velocity using the relationship $V_h=(V_{lf}+V_{lr}+V_{rf}+V_{rr})/4$, where i=lf, lr, rf and rr; and $(V_{lf},V_{lr},V_{rf},V_{rr})$ is the strut relative velocity.

5. (Original): The system according to claim 2, wherein the controller is configured to calculate the body relative pitch velocity using the relationship $V_p=(V_{lf}-V_{lr}+V_{rf}-V_{rr})/(2*L)$, where i=lf, lr, rf and rr; L is the wheelbase; and $(V_{lf},V_{lr},V_{rf},V_{rr})$ is the strut relative velocity.

6. (Original): The system according to claim 2, wherein the controller is configured to calculate the body relative roll velocity using the relationship $V_r=(V_{lf}+V_{lr}-V_{rf}-V_{rr})/(2*t)$; where i=lf, lr, rf and rr; t is the tread; and $(V_{lf},V_{lr},V_{rf},V_{rr})$ is the strut relative velocity.

7. (Original): The system according to claim 1, wherein the controller is configured generate a body relative velocity based on the strut relative displacement signals.

8. (Original): The system according to claim 7, wherein the controller is configured to extract the first frequency amplitude based on the body relative velocity.

9. (Original): The system according to claim 8, wherein the controller is configured to apply a high pass filter to the body relative velocity before extracting the first frequency amplitude.

10. (Cancelled).

11. (Previously Presented): The system according to claim 1, wherein the controller is configured to apply a low pass filter to the body relative velocity before extracting the second frequency amplitude.

12. (Cancelled).

13. (Previously Presented): The system according to claim 1, wherein the controller is configured to calculate a third frequency based on the relationship A_1/A_0; where the first frequency amplitude is A_1 and the second frequency amplitude is A_0.

14. (Previously Presented): The system according to claim 1, wherein the controller is configured to calculate a heave strut pressure based on the strut relative displacement signals and the third frequency.

15. (Previously Presented): The system according to claim 1, wherein the controller is configured to calculate a heave strut pressure based on strut relative velocity and the third frequency.

16. (Previously Presented): The system according to claim 1, wherein the controller is configured to calculate a roll strut pressure based on strut relative velocity and the third frequency.

17. (Previously Presented): The system according to claim 1, wherein the controller is configured to calculate a pitch strut pressure based on strut relative velocity and the third frequency.

18-27. (Cancelled).